

**REMARKS**

Claims 1-7 are pending in this application, with claims 6-7 currently withdrawn from consideration. Claims 1-5 have been amended by this amendment.

Amendments to the specification have also been made. A paragraph has been added at page 5, after line 4. This paragraph is supported by the recitation of claim 2, which recites a weight-average molecular weight range of 2,000 to 200,000 for the water-borne polyurethane resin. In addition, Applicants note that this paragraph corresponds to paragraph [0000] on page 7 of the verified translation of Japanese Unexamined Patent Application, First Publication No. 2000-203609, corresponding to the priority document for the present application. A copy of this application in Japanese and the verified translation are attached. This paragraph was inadvertently omitted in preparing the present specification.

An amendment has also been made to the paragraph at page 15, line 6, of the specification, changing "association polymer-type" to --associative polymer-type--.

**Claims 2-4 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (Office action paragraph 2).**

The rejection of claims 3-4 is overcome by the amendment deleting the word "type".

The rejection of claim 2 is overcome by the amendment to claim 2, clarifying that the water-borne polyurethane resin does not have an isocyanate group but has two groups containing at least active hydrogen atoms, which are reactive with the isocyanate group.

In addition, claim 4 has been amended for clarity to change “association polymer” to –associative polymer–. A corresponding amendment has been made in the specification. Claim 5 has also been amended for clarity.

**Claims 1-3 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Voss (U.S. Patent No. 5,861,470) and Rolando (U.S. Patent No. 5,494,960) (Office action paragraph 5).**

The rejection of claims 1-3 is respectfully traversed.

The Examiner states that Voss discloses a dry laminate adhesive containing a water-borne polyurethane resin and isocyanate compound. However, Applicants note the following points:

(a) Neither Voss nor Rolando clearly discloses a dry laminate adhesive composition comprising water-borne polyurethane resin and comprising thickener. In particular, in Rolando’s example 5, cited by the Examiner, there appears to be no suggestion at all for a thickener.

(b) Neither Voss nor Rolando discloses or limits characteristics of the water-borne polyurethane resin, such as the softening point or the viscosity at the softening point. Voss only discloses that the viscosity of the adhesive is 25 to 2000 cps (in column 5, line 7), which is the viscosity of the adhesive agent when it is used. Therefore, the disclosure of Voss does not relate to the characteristics, that is, the softening temperature and the viscosity at the softening temperature, of the water-borne polyurethane resin of the present invention.

Moreover, the Examiner states that “Voss and Rolando don’t specifically disclose softening temperature or viscosity values for the water-borne polyurethane, .... When a reference discloses all

the limitations of a claim except for a property, **and the examiner can't determine** [if] the reference inherently possesses the property, the burden of proof is shifted to the applicant" (emphasis added).

Applicants note, however, that MPEP 2112 states, in part:

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) ..."

That is, the burden does not shift to the applicant unless the Examiner provides a **basis in fact and/or technical reasoning** that the property at issue is **necessarily** inherent. Applicants respectfully submit that the Examiner has provided no such basis in fact or technical reasoning regarding the softening temperature.

Applicants therefore assert that claims 1-3 are novel and non-obvious over Voss '470 and Rolando '960, taken separately or in combination.

**Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Voss and Rolando in view of Itabashi (U.S. Patent No. 5,854,323) and Emmons (U.S. Patent No. 4,155,892) (Office action paragraphs 6-10).**

The rejection of claims 4 and 5 is respectfully traversed.

In the rejection, the Examiner states that Voss and Rolando disclose the invention of claim 1, and that Voss discloses the invention of claims 4 and 5, except for specifying the thickener as an associative polymer and not specifying the pigment dispersing resin.

In traversing the rejection, Applicants first note that Applicants have argued above that Voss and Rolando cannot be combined to produce the recitation of claim 1, from which claims 4 and 5 depend. In fact, as noted above, Rolando does not appear to suggest any thickener at all.

The Examiner cites Emmons for disclosure of polyurethane “associative thickener” in column 7, lines 36-45. Applicants note that Emmons discusses thickening by an associative mechanism. However, it is not clear that Emmons’ thickeners are “association polymer-type surface active agents”. Moreover, the Examiner has cited suggestion or motivation in Emmons or Voss for the use of this thickening mechanism in Voss’s composition. Applicants cannot find any suggestion to this effect and, as noted above, can find no suggestion in Rolando for any thickener.

The Examiner cites Itabashi for the disclosure of a water dispersible polyurethane pigment dispersing agent. Itabashi discloses “an aqueous type pigment dispersing agent having one portion which has a high affinity with a pigment and which has at least one type of selected from the group consisting of an organic dye, anthraquinone and acridone and only at a terminal end or at both terminal ends of at least one aqueous polymer...” (Abstract). Applicants submit that Itabashi seems to use a dispersing agent and a pigment to thereby disperse the pigment in the aqueous polymer composition.

Therefore, Itabashi discloses the incorporation of an aqueous water dispersing agent with pigment in the aqueous polymer composition for producing ink or water based paint. However, there

Amendment under 37 CFR 1.111  
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is no suggestion to use the aqueous water dispersing agent disclosed by Itabashi in the water based adhesive composition disclosed by Voss. Accordingly, no combination of the cited references can produce the recitation of the present claims.

Applicants therefore assert that claims 4-5 are novel and non-obvious over Voss '470, Rolando '960, Itabashi '323 and Emmons '892, taken separately or in combination.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

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In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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**23850**

PATENT TRADEMARK OFFICE

Enclosures:   Version with markings to show changes made  
                  Certified Translation of Japanese Unexamined Patent Application First  
                  Publication No. 2000-203609  
                  Copy of Japanese Unexamined Patent Application First Publication No. 2000-  
                  203609

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

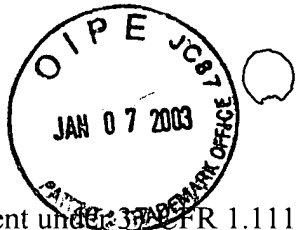
Please amend the specification as follows:

On page 5, between lines 4 and 5, please insert the following paragraph:

The water-borne polyurethane resin (A) used in the present invention is a polyurethane resin having at least two active-hydrogen-atom containing groups and hydrophilic groups. In order to provide the water-borne polyurethane resin having a softening temperature of less than 80°C and to provide the water-borne polyurethane resin having a viscosity of the melt at the softening temperature of less than 10<sup>5</sup> Pa·s, it is effective to reduce the molecular weight of the water-borne polyurethane resin and a preferable weight average molecular weight of the water-borne polyurethane resin ranges from 2,000 to 200,000, more preferably 3,000 to 100,000.

Please replace the following paragraph with the paragraph beginning on page 15, line 6, with the following rewritten paragraph:

At the time of coating on the skin layer formed on the release paper, it is necessary to adjust the viscosity of the aqueous dry laminate adhesive composition in accordance with the coating method thereof, and the adjustment is executed by the use of a thickener (C). Any type of conventionally known thickener (C) can be used if it is compatible with the water-borne polyurethane resin (A). Examples of the thickener (C) include cellulose derivatives such as HEC (Hydroxyethylcellulose), MC (Methylcellulose), and CMC (Carboxymethylcellulose); polyacrylate salt, PVP (polyvinylpyrrolidone), and thickeners in the system of ~~association~~ associative polymer-type



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surface active agents such as urethane or polyether systems.

**IN THE CLAIMS:**

Please amend claims 1-5 as follows:

1. (Amended) An aqueous dry laminate adhesive composition for artificial leather comprising:

(A) a water-borne polyurethane resin (A), (B) a crosslinking agent (B), and (C) a thickener (C),

wherein said water-borne polyurethane resin (A) has a softening temperature of less than 80°C and a viscosity of the melt at 80 °C of less than 10<sup>5</sup> Pa ·s, and

wherein a softening temperature of a cured product obtained after curing a reaction product between said water-borne polyurethane resin (A) and the crosslinking agent (B) is higher than 120°C.

2. (Amended) An aqueous dry laminate adhesive composition for artificial leather according to claim 1, wherein said water-borne polyurethane resin(A) has a weight-average molecular weight ranging from 2,000 to 200,000 and has ~~an isocyanate group and two groups containing~~ at least two active hydrogen ~~atoms~~ atom-containing groups, which are reactive with isocyanate groups.

3. (Amended) An aqueous dry laminated adhesive composition for artificial leather according to claim 1, wherein said crosslinking agent (B) is a polyisocyanate-type crosslinking agent.

*marked up*

4. (Amended) An aqueous dry laminate adhesive composition for artificial leather according to claim 1, wherein said thickener (C) is an ~~association~~ associative polymer-type surface active agent.

5. (Amended) An aqueous dry laminate adhesive composition for artificial leather according to claim 1, wherein ~~said the~~ aqueous dry laminate adhesive composition further comprises ~~a colorant constituted by aqueous dispersible colorants~~ water dispersible pigments, whose surface is coated with water dispersible resins which are obtained by coating surfaces of pigment particles with an aqueous dispersible resin.

*marked up*